



## **ELECTRONICS AND TELECOMMUNICATION DEPARTMENT**

**Topic Name:** Workshop on Machine Learning and Deep Learning  
**Name of the Guest Speaker:** Mr Ankit Kumar, Application Engineer for MathWorks  
**Name of the Company :** Design Tech Pvt Ltd (Pune)  
**Date:** 27<sup>th</sup> and 28<sup>th</sup> July 2023  
**Time:** 10:00 am to 4:00pm

### **Programme Summary:**

On 27<sup>th</sup> July 2023 the department of ELECTRONICS AND TELECOMMUNICATION ENGINEERING had organised a 2 day workshop on "MACHINE LEARNING AND DEEP LEARNING USING MATLAB ". On day one speaker MR. ANKIT KUMAR started the session by introducing the basics of machine learning and deep learning. The workshop was conducted over a period of 2 days, with each day covering specific topics related to machine learning and deep learning. The content was structured as follows:

#### **Day 1:**

Introduction to Machine Learning: Overview of supervised, unsupervised, and reinforcement learning, and their applications.

Data Pre-processing: Techniques for data cleaning, feature engineering, and data transformation.

Linear Regression: Theory and hands-on implementation of linear regression for predictive modeling.

Logistic Regression: Application of logistic regression for binary classification problems.

#### **Day 2:**

Introduction to Deep Learning: Explanation of neural networks and their components.

Building Neural Networks: Hands-on practice on creating neural networks using a deep learning framework.

Convolutional Neural Networks (CNNs): Understanding CNN architecture and image classification tasks.

Recurrent Neural Networks (RNNs): Application of RNNs in natural language processing.

Transfer Learning: Leveraging pre-trained models for specific tasks.

Reinforcement Learning: Introduction to reinforcement learning and its applications.

The Workshop on "Machine Learning and Deep Learning using MATLAB" organized was a resounding success, achieving its intended objectives of introducing participants to the world of machine learning and deep learning. The content was well-structured, and the combination of lectures, hands-on exercises, case studies, and group projects ensured a comprehensive learning experience for all attendees.

**Report prepared by Eshaan Bangera**



# Vishnu Waman Thakur Charitable Trust's **VIVA Institute of Technology**

Approved by AICTE, New Delhi, DTE, Government of Maharashtra  
And Affiliated to University of Mumbai

## **Photos:**

